

CTC Quarterly Bulletin

4th Qtr, FY 96, No. 96-10, OCT 96

*“Understanding Our Business:
Synchronizing Fires and Maneuver”*

“MOBILITY/SURVIVABILITY: 3 ENGINEER ARTICLES:”

1. The Enemy Situation Template in the Attack
2. Protecting Your Breach Assets
3. Life's a Breach and Then You Die

“Black 6, this is Red 6 . . . contact . . .”

“The PLGR”

Techniques and Procedures

**CENTER FOR ARMY LESSONS LEARNED (CALL)
U. S. ARMY TRAINING AND DOCTRINE COMMAND (TRADOC)
FORT LEAVENWORTH, KS 66027-1327**



FOREWORD

This CTC Quarterly Bulletin focuses on Techniques and Procedures your unit can use, so you have the best chance to “do it right the first time.” If the lessons in this bulletin and subsequent CTC Quarterly Bulletins help you avoid making a mistake, then the lessons learned process is working well.

The relevant lessons for the Total Army are there in the field with you. CALL has the mission and the means to share those lessons with the rest of the U. S. Army. This bulletin is one way to do that.

If you or your unit have a “lesson” that could help other units do it right the first time, send it to us. Don't worry about how polished your “article” is. CALL can take care of the editing, format and layout. We just want the raw material that can be packaged, and then shared with everyone.

So take the time to put your good ideas on paper and then get them to CALL. We'll acknowledge receipt and then work with you to put your material in publishable form. It may show up in *News From the Front!*, a bimonthly publication, or in the *CTC Quarterly Bulletin*. Select material will also be put “on line” in the *Training Quarterly*, a new publication on the CALL Home Page.

You can fax your material to DSN 552-9583/com1 (913) 684-9583, ATTN: Mr. Rick Bogdan, Military Analyst.

Combat Training Center (CTC) “HOW TO” Video Tapes

CALL is distributing CTC-produced “How To” tapes (see the current list at the back of this publication) at no cost. These are standard VHS video cassettes. As subsequent tapes are released by the CTCs, CALL will distribute them. In future publications, we will update the list of available tapes. You can order these tapes as you would any CALL publication, *BUT* the videos will be issued on a unit, not individual, basis. As with any product CALL produces, we highly encourage local reproduction of these tapes.

Is Your Unit Looking for Operations Orders to Facilitate Practicing the TDMP? Well, *Look No Further!*

Recent trends from JRTC, NTC, and CMTC reveal that units typically experience problems with the Tactical Decision-Making Process (TDMP). Brigades often do not have the opportunity to exercise their staff planning process as often as necessary while at home station. CALL has received permission from NTC and JRTC to disseminate, upon request, Division-level operation orders. The orders are designed to be used by a Brigade Headquarters to train a portion of, or the entire, TDMP. They can also be used to facilitate unit CPXs, simulation exercises, or OPDs. If your brigade is interested in using these orders, check out our Customer Service Section at the back of this publication.



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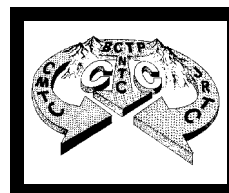


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The PLGR

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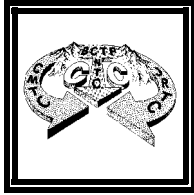
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UNDERSTANDING OUR BUSINESS: Synchronizing Fires and Maneuver

by CPT Kyle M. McClelland, Fire Support Analyst, National Training Center

THE ISSUE: Fire supporters at battalion/task force level and below often struggle with integrating their plans with those of maneuver forces to promote synchronization during offensive and defensive operations. The trouble may originate from the lack of published fire support doctrine to support key maneuver tasks such as ***breaching operations*** and ***engagement area development***. Doctrinal *maneuver* manuals, such as FM 71-1, 71-123, and 90-13-1, are critical building blocks which adequately address these maneuver operations, but ***Fire Support Officers (FSOs)*** are not familiar with their contents. The result is unsynchronized fires and maneuver.

THE SOLUTION: Fill the time gap in current doctrinal references. Get the Combat Training Center (CTC) “subject matter experts,” small group instructors (SGIs), and the Field Artillery School doctrine writers to produce and publish “white paper” tactics, techniques, and procedures (TTPs), checklists, charts and matrices that inherently foster integration of fires and maneuver. The TTPs, checklists, charts and matrices should be tailorable to support any type unit: DS, Reinforcing, heavy, light, Paladin, Marine, and National Guard.

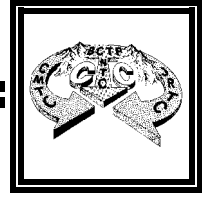
To initiate this integration effort, the TTPs and checklists that follow discuss the fire support role in synchronizing engagement area development and breaching operations. TTPs and checklists presented are focused at task force level.

1. Engagement Area Development.

The critical planning piece for both maneuver and fire support during defensive operations is engagement area (EA) development. FM 101-5-1 describes an EA as, “an area in which the commander intends to trap and destroy an enemy force with *massed fires of all available weapons*. EAs are routinely identified by a target reference point (TRP) in the center of the trap area or by prominent terrain features around the area. Although EAs may also be

divided into sectors of fire, it is important to understand that defensive systems are not designed around the EAs, but rather around avenues of approach. EAs and sectors of fire are not intended to restrict fires or cause operations to become static or fixed; they are used only as a tool to *concentrate fires* and to *optimize their effects*.”

a. The EA development process is an “art” and the FSO plays an important part in



ensuring that the “science” portion is complete. He must provide the commander with critical information and ensure that the fire support capabilities and limitations are understood.

b. During the Tactical Decision-Making Process (TDMP), *it is essential that the Fire*

Support Officer (FSO) be involved for EA development and EA refinement. The task force FSO requires critical information from Brigade to begin mission analysis. The following chart lists some areas that need to be addressed *prior* to the FSO entering the EA with the commander and key staff:

FSO ESSENTIAL INFORMATION

1. Brigade commander’s concept for fire support

A precise articulation of what and when fire support will accomplish and why it contributes to the overall plan.

2. Brigade scheme of fires

How and where FS will carry out the concept. Whether there will be a Brigade deep fight. What the deep fight will accomplish/desired effects. When fires will be available for the close fight. How to transition to the close fight (triggers, POFs, control measures).

3. Brigade-directed obstacles in the task force sector

The *plan* to cover with fires.

4. Class V availability/constraints

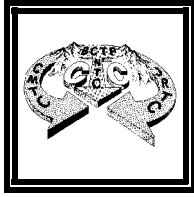
FASCAM, DPICM, smoke, and Copperhead allocations.

5. Task Organization/attachments COLTs and their role in the close fight.

The information from Brigade, combined with critical information from the task force (maintenance status of M981, FIST-Vs, mortars and mortar ammunition on-hand), will enable the FSO to determine capabilities and limitations for inclusion in his staff update to the commander.

c. At the completion of mission analysis, there are critical FS tasks which the task force S-3 and XO should include on the timeline to ensure they are not overlooked (some tasks

may be added after the OPORD issuance and preparations have begun):



(1) Target refinement and cut-off (ensure planned versus actual obstacles are covered by indirect fires).

(2) Indirect fire triggers emplaced (day and night) (identify whether physical trigger or lazard area).

(3) Times recorded by the FSE for Co/Tm FIST's displacement from primary to alternate positions (day and night) and triggers for displacement, if planned.

(4) Mortar displacement times and triggers (identify if pre-stock is available and dug-in).

(5) Co/Tm FIST survivability positions complete (identify whether dug-in or hasty positions).

(6) Radar management (identify if CFZs/CZs have been submitted to Brigade for actual battle positions and mortar locations).

(7) Coordination of land management issues with Brigade S-3 for positioning of artillery in the task force sector (consider the effect on the task force repositioning plan or commitment of a task force/brigade reserve).

d. The S-2, engineer, and FSO are key players for the commander during the EA development process and must all participate.

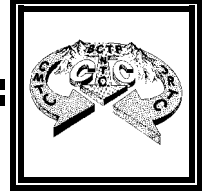
In a perfect world, all planning and preparation for EA construction would be performed on the ground, in the actual EA. Time and daylight often do not permit this to occur, and the staff is confined to a map. Regardless of where or how the initial process takes place, some key areas must be addressed by each staff member:

(1) **The S-2** provides the commander with the most likely and most dangerous enemy avenues of approach into the task force sector.

(2) **The FSO** provides the commander with the Brigade deep fire plan, which will influence the enemy prior to entering the EA and what the desired BDA will be against any enemy formation. This will affect how the task force S-3 and commander array forces and conduct rough battle calculus for both direct and indirect fire weapon systems.

(3) **The Engineer and the FSO** then jointly provide the commander with a proposed obstacle and targeting concept to get the enemy into the EA and then destroy him.

(4) **The Commander** will select a point(s) on the ground (TRP) for where he wants to kill the enemy with massed fires from all available systems.



If the process is conducted on the ground, the FSO can then do an about-face and conduct hasty terrain analysis to determine likely OPs and alternate OPs to support the EA. With the Co/Tm FSOs present, they can begin OP selection and occupation to

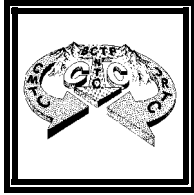
determine feasibility/tenability. Upon returning to the TOC, these positions can be entered into TERRA-BASE to determine line of sight, dead space, and produce visibility diagrams to be issued to CO/TM FISTs.

Staff integration with the S-2 and engineer during the preparation phase is essential, and the critical fire support tasks on the task force timeline need to be monitored for completion in the fire support element (FSE).

EA construction consists of seven steps:

- (1) *Visualize* how the enemy will/might attack
- (2) *Select* where and determine how to kill him
- (3) *Position* forces to kill him with direct fires
- (4) *Position* obstacle groups to support direct fires and obstacles
- (5) *Plan* indirect fires to support direct fires and obstacles.
- (6) *Complete* the plan, drive the EA, select/prepare final positions, site obstacles and triggers
- (7) *Rehearse*

e. The FSO/FSNCO may find the following checklist of FS considerations for defensive operations helpful. The checklist can be modified to support any type unit or defensive operation.



FIRE SUPPORT CONSIDERATIONS CHECKLIST

FIST/mortar survivability ☐ mounted ☐ dismounted

Engineer assets _____

C2 of FISTs ☐ centralized ☐ decentralized

Impact _____

Use of Brigade assets in the close fight

COLTS available to support close fight? ☐ yes ☐ no

Assign Bde targets in TF sector to execute? ☐ yes ☐ no

Mortars

Task and purpose _____

Solely against dismounted breaching threats? ☐ yes ☐ no

Observer positions

All targets visible from OPs? ☐ yes ☐ no

All triggers established? ☐ yes ☐ no

Copperhead (CPH) requirements _____

Is CPH available? ☐ yes ☐ no

Engagement area developed? ☐ yes ☐ no

TF FSO position considerations for redundancy _____

Triggers

Visible both day and night? ☐ yes ☐ no

Who is responsible for marking? _____

How can TF assist? _____

Who will supervise emplacement? _____

Obstacles

All covered by direct/indirect fires? ☐ yes ☐ no

Commanders critical/priority obstacles _____

Target refinement complete by resp FIST? ☐ yes ☐ no

"Drop-dead" time to refine if obstacles are emplaced in a different location _____

Force protection

Commander's critical units _____ location _____

_____ location _____

_____ location _____

Reserve? _____

Main Effort? _____

CFZ refinement; expect GPS locations for BPs when? _____

Land management

Artillery position _____

Impact on repositioning the TF for defense in-depth _____

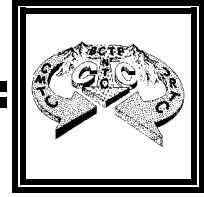
Impact on repositioning of reserve force _____

Final protective fires (FPFs)

Artillery FPFs allocated _____

Mortar FPFs available _____

Priority for planning FPFs _____



f. As a planning tool, the FSO may want to ask himself the following “4-Ss” concerning time management and time available:

SUNLIGHT - How much daylight do I have available to conduct defensive preparations?

SUBORDINATES - What is the training level of my FISTs, and how familiar are they with the SOP and FS requirements for EA development tasks?

SUPERVISE - How much time do I have to supervise and check preparations? How much responsibility can I delegate to the FSNCO?

SIMPLICITY - Do the Co/Tm FISTs understand the overall concept and intent for the Brigade and TF plan? How much time do I have to rehearse the entire plan with all key players?

g. During the execution phase, the FSO provides redundancy for targets and focuses the fires where the commander deems necessary. The following is a summary of building an engagement area:

- ☛ Visualization is crucial
- ☛ IPB drives much of the process
- ☛ Subordinates must understand when, where, how, and why to engage
- ☛ Time management often determines success or failure
- ☛ Plan from the EA looking back

☛ Rehearse, rehearse, rehearse

2. Breaching Operations.

Conducting a successful breaching operation is often the most complex task a unit encounters during a CTC rotation. Breaching operations are *clearly* defined and addressed in doctrinal references **FM 90-13-1, Combined Arms Breaching**, and **FM 6-20-40, Fire Support for Brigade Operations**, yet it remains the hardest task for maneuver and fire support to synchronize. FM 90-13-1 is probably the best “how to” doctrinal reference manual. Task Force FSOs need to have FM 90-13-1 in the reference library and be as familiar with its content, if not more so, than our maneuver brethren. It provides the FSO with the step-by-step requirements for fire support and breaching operations.

a. **Things the fire supporters need to know:**

(1) The three *breach organizations*, and what each is responsible for:

- Support force
- Assault force
- Breach force

(2) The four types of *breaching techniques* and the fire support requirements for each:

- In-stride breach
- Deliberate breach
- Assault breach
- Covert breach



(3) The “SOSR,” fire support requirements to support ***breaching fundamentals***:

- Suppress
- Obscure
- Secure
- Reduce

b. The FSO’s doctrinal knowledge of breaching operations is necessary for mission success. Understanding breaching operations will assist the FSO in developing a commander’s concept for fires which focuses on the critical tasks. If the FSO is unfamiliar with doctrine, he may find himself developing a concept for fires which tasks the FS system with too many requirements to accomplish.

c. In accordance with the concept for fires, fire support at task force level (to include mortars) can probably accomplish four to five tasks in support of the breach:

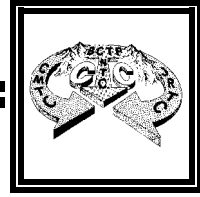
- (1) Provide obscuration and suppression fires
- (2) Destroy AT weapon systems
- (3) Destroy dismounted infantry positions
- (4) Delay, disrupt, neutralize repositioning forces
- (5) Possibly destroy the CSOP(s), if identified and not in direct fire contact

d. The following comment is often heard from brigade commanders and FSCOORDs at combined arms rehearsals:

“I don’t care if we do everything else wrong, we will get the smoke in the right place with sufficient volume and we will suppress the enemy!”

This comment sends a strong message to fire supporters. If the fire supporters do not understand the importance of breaching fundamentals, such as OBSCURATION and SUPPRESSION, they may develop concepts for fire which do *not* support the commander’s intent. The FSO must get the commander to prioritize what exactly he wants fires to do. The FSO must be alert to the commander’s planning guidance and must provide the commander with the capabilities and limitations of the fire support system. This requires a thorough understanding of what the *brigade* scheme of fires will accomplish, what assets are available to the task force, and what competing demands there will be with the brigade scheme of fires.

e. A useful tool, or checklist for SOSR fire support planning considerations to support breaching operations may look like this:



SOSR PLANNING CONSIDERATIONS CHECKLIST

1. Use TF scouts/COLTs to set conditions for the breach prior to arrival of MB.
2. Plan target handoff with Bde COLTs.
3. Refine targets based on “hard intelligence” and actual POP.
4. Target for all wind speeds and directions.
5. Position observers with redundancy (plus up the support force).
6. Shift POF to the SBF force, then back up SBF force, then assault force.
7. Plan and fire smoke to cover movement of SBF force.
8. Plan triggers to shift POF from SBF force to assault force as they begin assault.
9. Plan triggers to lift/shift fires from obscuration to suppression.
10. Plan FSCMs, FAs, RFLs and CFZs at the POP, SBF position and holding areas.
11. Position task force SSFO as a redundant observer/executor.
12. Focus mortars of AT weapon systems and dismounted infantry.
13. Use signals to communicate with conditions have been meant to commit the breach force.
14. Plan for additional smoke for mortars and artillery.

f. FM 90-13-1 states that suppression fires are more critical than obscuration fires. Trends at NTC have shown, however, that if obscuration fires are effective, the enemy *is* suppressed. The use of obscuration fires, then, may be overall more effective than doctrine exhorts.

(1) A standard MRC defense is 1,500 meters wide and 500 meters in depth. The FSO should plan smoke targets, against the S-2's SITEMP, in at least four locations:

(a) Between the enemy and the breach site (POP)

(b) North of the MRC, if winds are from north to south

(c) South of the MRC, if winds are south to north

(d) On top of the MRP to be isolated and obscured in unfavorable wind conditions



- (2) Questions the FSO must consider:
- (a) Can I fire a 1,000-meter smoke screen?
 - (b) How many rounds will it require?
 - (c) How many minutes of smoke are available?
 - (d) How long will it take to build and sustain?
 - (e) Can the mortars or mechanized smoke augment?

g. *Reconnaissance and surveillance (R&S) effort.* Staff integration with the task force S-2 during the R&S effort is vital.

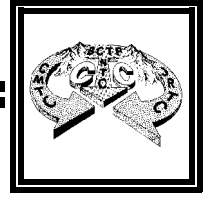
Effective scouts and COLTs can infiltrate enemy defensive positions and provide 10-digit grids to vehicle positions. The key is getting the “hard intelligence” into the fire support system and executing these fires at the critical time. The scouts and COLTs can also be effective in setting the conditions for obscuration fires at the breach site by adjusting fire for the actual conditions of wind speed and direction. FSOs should plan for scouts (or a FIST/FO with the scouts) or COLTs to set the conditions prior to the arrival of the SBF force.

THE FSO MUST FIGHT THE ENEMY, NOT THE PLAN

h. *Command and Control.* The task force conducting the breach operation should have an SOP which defines how the C² system will execute the breach. The task force S-3 is normally the breach force commander. He is responsible for ensuring that the conditions of SOSR have been achieved before committing the breach force. **TACTICAL PATIENCE IS CRITICAL**, but the maneuver force cannot sit idle and be vulnerable to enemy indirect fires. There also comes a time when the maneuver force can no longer afford to lose momentum. Early commitment of the breach force, without the conditions being set, may lead to the force's demise. The FSO plays an important role during the breaching operations. He

provides redundancy and ensures that the plan is adjusted as required to produce the necessary results. **The FSO must be able to see the battlefield.** He must be able to monitor the command net and lift and shift fires at the critical time, should the executor at Co/Tm level be unable to execute.

i. *Force Protection.* The FSO must consider the requirements for force protection at the breach site. The enemy phases of fire for defensive operations should focus the FSO's planning requirements for radar zones. CFZs or FSCMs should be planned at the POP, SFB positions, and holding areas.

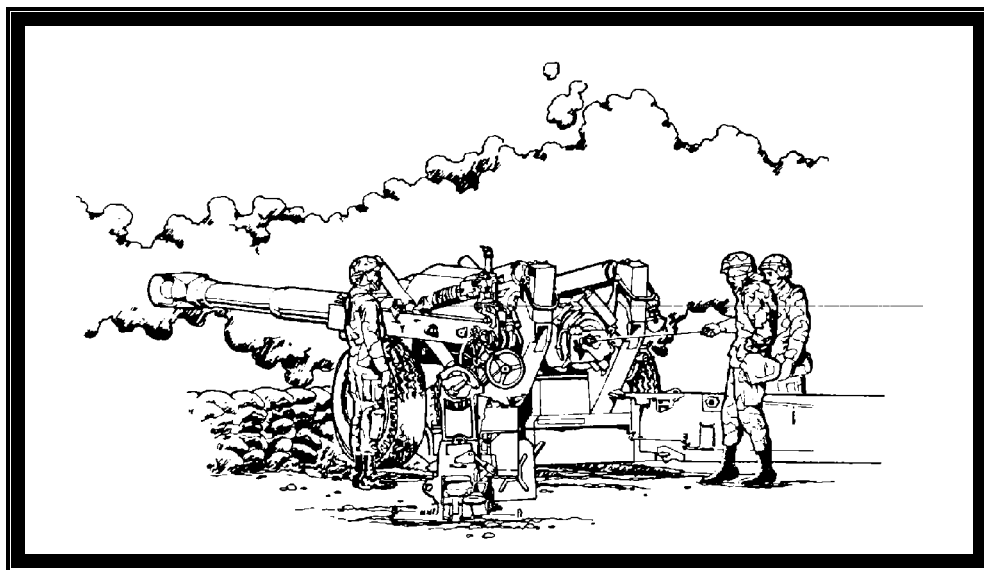


No fire areas (NFAs) should be planned around scouts and COLTs and restrictive fire lines (RFLs) planned for converging forces on the objective.

j. Breaching operations, although difficult to execute, can be incorporated in fire support SOPs and rehearsed at Home Station in a classroom environment. Understanding what

the doctrinal fire support requirements are for conducting breaching operations and what the breaching tenant, organization, and fundamentals are, will greatly assist the fire supporters. *CTCs should not be the first place that fire supporters are introduced to FM 90-13-1.*

SUMMARY: To be an integral part of the “team,” we as fire supporters must become intimately familiar with maneuver doctrine and, in most cases, be the subject matter experts because of the fact that fire supports maneuver, not vice versa. Lessons learned, TTPs, and information papers are key to improving our understanding of what we can provide our maneuver forces. ☛





Mobility/Survivability Techniques and Procedures

3 Articles

by

Major Steven Oluic and Captain Scott Johnson
Combat Maneuver Training Center

1

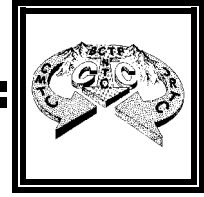
THE ENEMY SITUATION TEMPLATE IN THE ATTACK:
(An Engineer's Perspective)

2

PROTECTING YOUR BREACH ASSETS
(An Engineer Risk Assessment)

3

“LIFE’S A BREACH AND THEN YOU DIE”
(Mine-Related Fratricide Prevention)



THE ENEMY SITUATION TEMPLATE IN THE ATTACK: (An Engineer's Perspective)

Engineer planners must be proactive, knowledgeable and integrated members of the Task Force (TF)/Brigade Combat Team (BCT) staff during the Intelligence Preparation of the Battlefield (IPB) process. A unit's success or failure in the attack may very well depend upon it!

When engineer planners fail to assist the S2 in the IPB process, a critical tool in planning the attack is lost. Combined with the S2's enemy situation template (SITEMP), a detailed analysis of the enemy's engineer capabilities, time available, past practices, and doctrine provides the TF or BCT commanders with a valuable tool to develop courses of action (COA), R&S plans, and task organizations. The engineer commander uses the analysis to determine the resources required for each COA, make recommendations based on the resources he has available, and tailor his forces to support the maneuver commander's intent. Without a doubt, it is the lynch-pin of successful engineer integration in the attack!

BENEFITS OF ENGINEER INTEGRATION DURING IPB

The TF/BCT benefits by:

Knowing . . .

- ✓ where and what type of obstacles to look for during the reconnaissance phase
- ✓ which COAs will require multiple breaches and which may only require one
- ✓ where assets may be required for situational obstacle planning, resourcing and execution

Which Allows . . .

- ✓ the S2 to confirm or deny the situational template and change it to fit the collected information
- ✓ the TF/BCT staff to understand the pros and cons of each COA and reduce overall risk
- ✓ the TF/BCT to plan and support a successful R&S effort
- ✓ the TF/BCT to plan support, assault, and breach force positions for each known or anticipated obstacle
- ✓ the TF/BCT to adequately task-organize assets for the attack



And Provides . . .

- ✓ the information required to determine the type of breaching operations needed to reach the objective
- ✓ the FSO and S3 the information needed to pre-plan indirect fires to support breaching operations
- ✓ the type of obstacles and terrain needed to conduct realistic rehearsals
- ✓ the information required to identify potential areas and requirements for situational obstacles

The Engineers benefit by:

Knowing . . .

- ✓ the number of breaches expected
- ✓ the type of obstacles expected
- ✓ the breaching resources required
- ✓ the required types of obstacles needed to support rehearsals
- ✓ locations for potential situational obstacles

Which Enables Them . . .

- ✓ to develop a tailored engineer task organization
- ✓ to identify and request additional resource requirements
- ✓ to develop plans to “flex” engineer assets on the battlefield
- ✓ to provide detailed advice to company/team/TF/BCT commanders
- ✓ to plan for and resource situational obstacles

And Focuses . . .

- ✓ the Sapper RECON Teams at specific NAIs and specific information requirements
- ✓ the Sapper platoons on specific reduction drills for the expected obstacles

The Company/Team/TF/BCT Commanders benefit by:

Knowing . . .

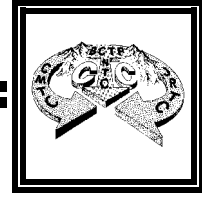
✓ detailed information on the number, locations, and types of obstacles they may encounter along their route

- ✓ the number of breaches they are expected to execute
- ✓ the resources and costs anticipated with breaching obstacles along their route
- ✓ potential locations of situational obstacles

Which Allows . . .

- ✓ detailed planning of support, assault, and breach force positions for each obstacle
- ✓ the FOs to plan indirect fires to support the breaching and smoke operations
- ✓ the development of realistic rehearsals based on known and expected types of obstacles

And Enables the company/team/TF/BCT to be prepared, rehearsed, and successful ☘



2

PROTECTING YOUR BREACH ASSETS (Engineer Risk Assessment)

One of the most dangerous tasks an engineer squad can face is dismounting and breaching a minefield under fire. Conducting the breach with a MICLIC towed by a squad M113 not only exposes the squad to fires in a lightly armored vehicle but also presents the possibility of losing two breaching assets at the enemy minefield. The loss of two breaching assets can also occur if the AVLM is used.

Commanders and engineers must *consider the risk* of losing sappers and other breach assets when planning for breaching operations. During the IPB process, consider the types of fires expected at each obstacle belt, and recommend specific breach assets to be used. This will enable maneuver commanders to task-organize their force and maximize the overall effectiveness of the operation. The risk assessment table shown below can be used to determine the risk.

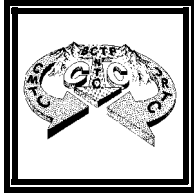
Engineer Asset Risk Assessment

Engr Asset Threat	Engr Sqd (dismounted)	Engr Sqd (mounted) w/MICLIC	ACE w/MICLIC	CEV w/MICLIC	AVLM	AVLB chassis w/MICLIC
No direct or indirect fires	LOW	LOW	LOW	LOW	LOW	LOW
Small arms fire only	MED	LOW	LOW	LOW	LOW	LOW
Artillery	HI	HI*	MED**	MED**	MED*	MED
Heavy Wpns Fire	HI	HI*	HI**	MED**	MED*	MED

* Two breach assets could be lost.

** One breach and one proofing asset could be lost.

The last five columns of the table show risks of losing tracked assets capable of pulling or moving the MICLIC that are organic to the engineer company. The engineer squad carrier towing a MICLIC exposes the most personnel to the threat. The ACE exposes the least. For both the ACE and the CEV, the loss of both a proofing and/or survivability asset in addition to the MICLIC may outweigh the benefit of minimal exposure of personnel. ☛



3

“Life’s a Breach, and Then You Die” (Mine-related Fratricide Prevention)

In their haste to establish the main engagement areas for the task force, engineer and maneuver units at CMTC routinely fail to mark, record, and report that mines are being put on the ground. This situation is worsened when FASCAM minefields are executed during the “fight.” Combined with a habitual failure to provide detailed graphics and information of planned and emplaced minefield locations through all levels of the task force and brigade combat team, it becomes a recipe for disaster.

The risk of a friendly vehicle driving into one of our own minefields is a concern for every commander. The risk can be reduced if it is evaluated and control measures are implemented at all levels. Engineers have the inherent responsibility to inform the maneuver commander that minefields in and around the MBA may be left unmarked in the interest of establishing the defense by the defend NLT time. In addition, because these minefields will remain in place after the battle is over, the risk of minefield fratricide may *increase*.

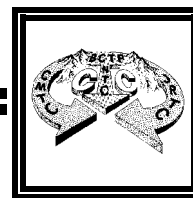
Engineers can conduct the minefield fratricide analysis for the commander using a Minefield Risk Assessment Matrix (see Table 1). With this information the maneuver commander can designate the control measures required for each individual obstacle or obstacle group.

Table 1 - Minefield Risk Assessment Matrix

Location Controls	TF/BDE Rear	MBA (on MSR)	MBA (Counter-Recon)	MBA (side/rear CoTmBP)	MBA (TF flanks)	DEEP
NONE	HI	HI	HI	HI	HI	MED
Graphics	HI	HI	HI	HI	MED	LOW
Radio and Graphics	HI	HI	HI	MED	MED	LOW
Marked* (rear only)	HI	HI	MED	MED	LOW	N/A
Marked* 3+ sides	MED	LOW	LOW	LOW	LOW	N/A

* Assumes graphics and radio broadcasts occur.

A separate risk analysis should be conducted for FASCAM minefields (see Table 2). Artillery-delivered ADAM/RAAMS and ground-emplaced FASCAM systems, such as Volcano



and MOPMS, provide a great deal of responsiveness to the commander. However, this flexibility can dramatically *increase* the risk of fratricide.

Table 2 - FASCAM Minefield Risk Assessment Matrix

Location Controls	TF/BDE Rear	MBA on MSR	MBA EA before H-2	MBA EA after H-2	MBA on flanks	DEEP
NONE	HI	HI	HI	HI	HI	MED
Graphics	HI	HI	HI	MED	MED	LOW
Radio and Graphics	HI	HI	HI	MED	MED	LOW
Marked* Rear Only	HI	HI	MED	LOW	LOW	N/A
Marked* 3+ sides	MED	LOW	LOW	LOW	LOW	N/A

* Assumes graphics distributed and radio broadcasts occur.

The controls the commander chooses to utilize may require additional engineer effort that could reduce the number of obstacles actually emplaced. Simple controls, such as graphics and radio broadcasts, require no additional engineer effort. The radio broadcasts are similar to NBC downwind or standard flash message report. This could be an hourly update of all emplaced mine locations or an individual announcement of each emplaced minefield on the task force and brigade combat team command nets. To be effective, each subordinate unit must pass the information to the lowest levels in the command. Accurate and timely obstacle information dissemination is the most important aspect to preventing mine related fratricide if the minefields cannot be marked.✱





"Black 6, this is Red 6 . . . contact"

TTP for Maneuver when in Direct Fire Contact with Enemy Forces

by CPT Mike Albertson, CALL NTC Liaison

At an alarming rate, BLUFOR offensive missions at the National Training Center (NTC) come to an agonizing halt when they enter the **Red Zone**, *the observation, indirect and direct fire range of the defending enemy*. The inability to effectively maneuver in this Red Zone is the *number one trend reversal* effort at the NTC. This article focuses on defining some of the specific causes of this trend and offers **tactics and techniques** that BLUFOR elements can use to improve their ability to *successfully maneuver*, fight and survive in the Red Zone.

DEFINITIONS:

1. **RED ZONE:** the enemy's direct fire battle space. A dynamic, physical area that expands or contracts in relation to the ability of the enemy to acquire and engage with direct weapons fire. It is graphically characterized, in a BLUFOR deliberate attack, as the area between the probable line of contact and the limit of advance, within enemy direct fire range.

2. **KILL ZONE:** an area within the Red Zone, where the enemy creates a fire sack; the place where the enemy ideally wants to destroy and defeat the attacking BLUFOR.

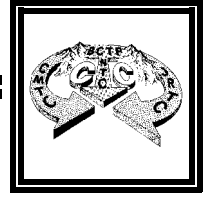
Note: the Kill Zone is within the Red Zone. The enemy tries to gain an unfair advantage on this ground to win the battle.

EXAMPLES:

1. Disrupts BLUFOR attack formations with deadly, *preplanned* artillery fires.
2. Uses *complex obstacles, chemical munitions, scatterable minefields* to **slow the BLUFOR movement/maneuver**.
3. The direct and indirect fire, combined with obstacles, chemicals, and mines, forces the BLUFOR into open terrain, *increasing exposure time to direct fire* within the Kill Zone.
4. The enemy uses well-prepared fighting positions to make it difficult to be acquired by the BLUFOR. Enemy battle positions are generally "L" shaped, with dismounted infantry, armed with AT5s, securing flanks in rough terrain.
5. The enemy builds *deception positions* and emplaces *dummy minefields*.
6. In meeting engagements, enemy units are tasked to find, fix, and destroy using tactical maneuver.

RESULTS:

1. BLUFOR is forced to *fight in more than one direction*.
2. Enemy *interlocking direct fires* kill command and control vehicles.
3. BLUFOR attack disintegrates into a piecemeal battle characterized by small unit and individual action; *stalled attack facilitates total BLUFOR destruction*.



The enemy application of combined arms combat power within the Red Zone most often proves too much for BLUFOR elements to overcome. Units lose TEMPO and commit themselves piecemeal and unsupported into the direct fire battle. Further, a *lack of adequate intelligence* and the challenges of *synchronizing the maneuver of numerous formations and the activities of supporting arms* contribute to the mission failures.

The remainder of this article will focus on *What to do to win in the Red Zone:*

- ✓ **How to avoid Kill Zones**
- ✓ **How to maneuver to accomplish the given mission.**

The *tactics* and *techniques* that follow on How to Win in the Red Zone focus on several specific subjects pertinent to the planning, preparation and execution of combat operations, especially close combat in the Red Zone:

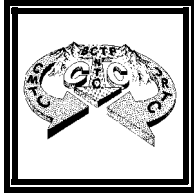
- * **IPB**
- * **MOVEMENT versus MANEUVER**
- * **MASS and MUTUAL SUPPORT**
- * **SUPPRESSION**
- * **SURVEILLANCE**

TECHNIQUES/TARGET ACQUISITION

- * **COMBINED ARMS MANEUVER**
- SUPPORT: Artillery, Mortars, Close Air Support**

- * **TEMPO and COMBAT PATIENCE**
- * **USE OF INFANTRY**
- * **EFFECTIVE USE OF TERRAIN**
- * **DEVELOPING THE SITUATION**
- * **BATTLE COMMAND**

This article disseminates initial impressions from the National Training Center, based on negative trends, and the resulting trend reversal effort. It addresses actions in contact with enemy forces, or problems associated when units close with the enemy. These initial TTPs will be further refined with a more detailed CALL Newsletter that is being written by the National Training Center. The upcoming Newsletter will also provide Training and Evaluation Outlines, as well as Home Station training strategies. At the conclusion, there are some recommendations about what should be doctrinally incorporated to assist in the Trend Reversal process.



Intelligence Preparation of the Battlefield (IPB)

PROBLEMS:

1. IPB products produced by BLUFOR elements typically portray *doctrinal templates* of the standard Motorized Rifle Company (MRC) defense - two Motorized Rifle Platoons (MRP) up and one MRP back.

EXAMPLE: see DIAGRAM No. 1 below.

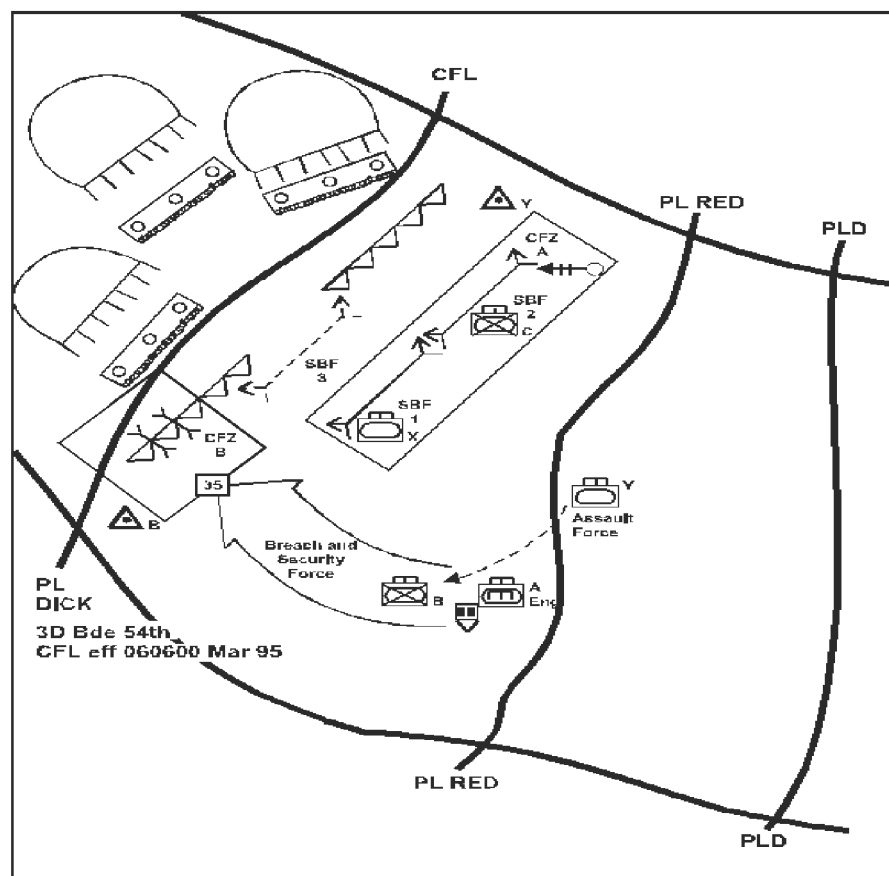
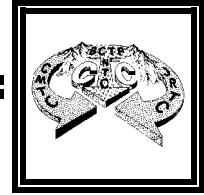


Diagram No. 1
Task Force Graphics



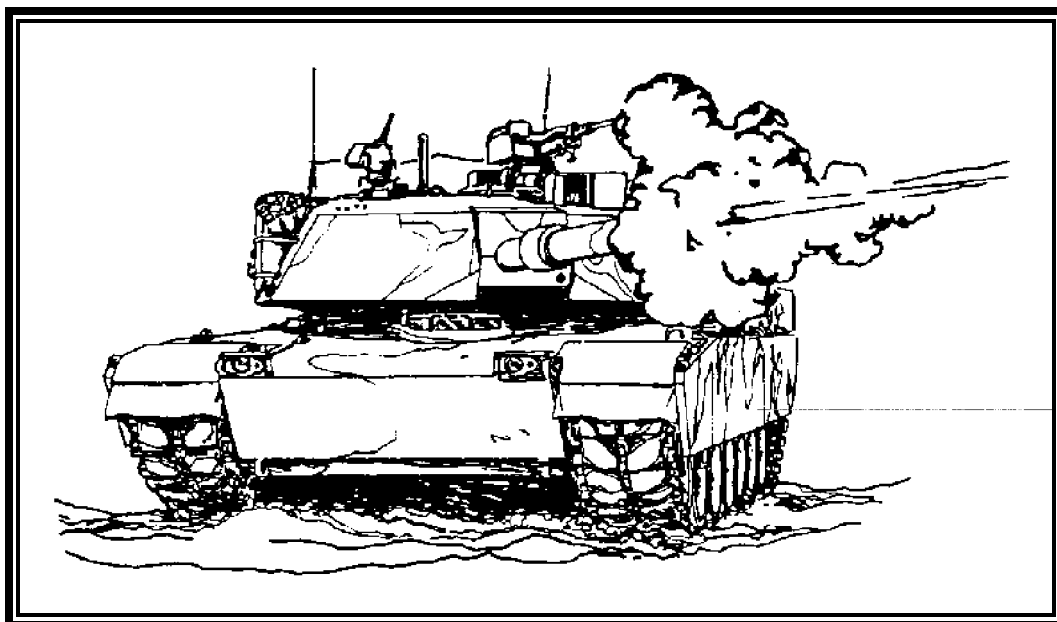
2. Situational templates that are produced frequently *lack sufficient detail* to assist the commanders and staff in visualizing how the enemy will fight *at the decisive point on the battlefield*.

3. S-2s need to portray, in their vulnerability analysis, how the enemy will look as the BLUFOR enters the Red Zone, and, particularly, within Kill Zones.

RESULT: when S-2s do not do a vulnerability analysis, Task Forces typically place the Support-by-Fire (SBF) position *in the enemy fire sack* - the very place the enemy plans to *achieve mass with direct fire weapon systems*.

Techniques: build an integrated situational template with sufficient resolution to focus Bn/TF-level planning.

1. S-2s must conduct a *vulnerability analysis* to assist the maneuver commander in *exploiting enemy weaknesses* and *bypassing enemy strength*. **EXAMPLE:** see DIAGRAM No. 2 below. This shows a defense far more dynamic than the static, doctrinal template. Notice the range fans for AT8 Songsters and the 125-mm tank main guns. The enemy positions vehicles based on METT-T, rather than the *table-top* doctrinal template alignment. What should be obvious? *There will be a direct fire fight, in most instances, just to establish the SBF positions.*



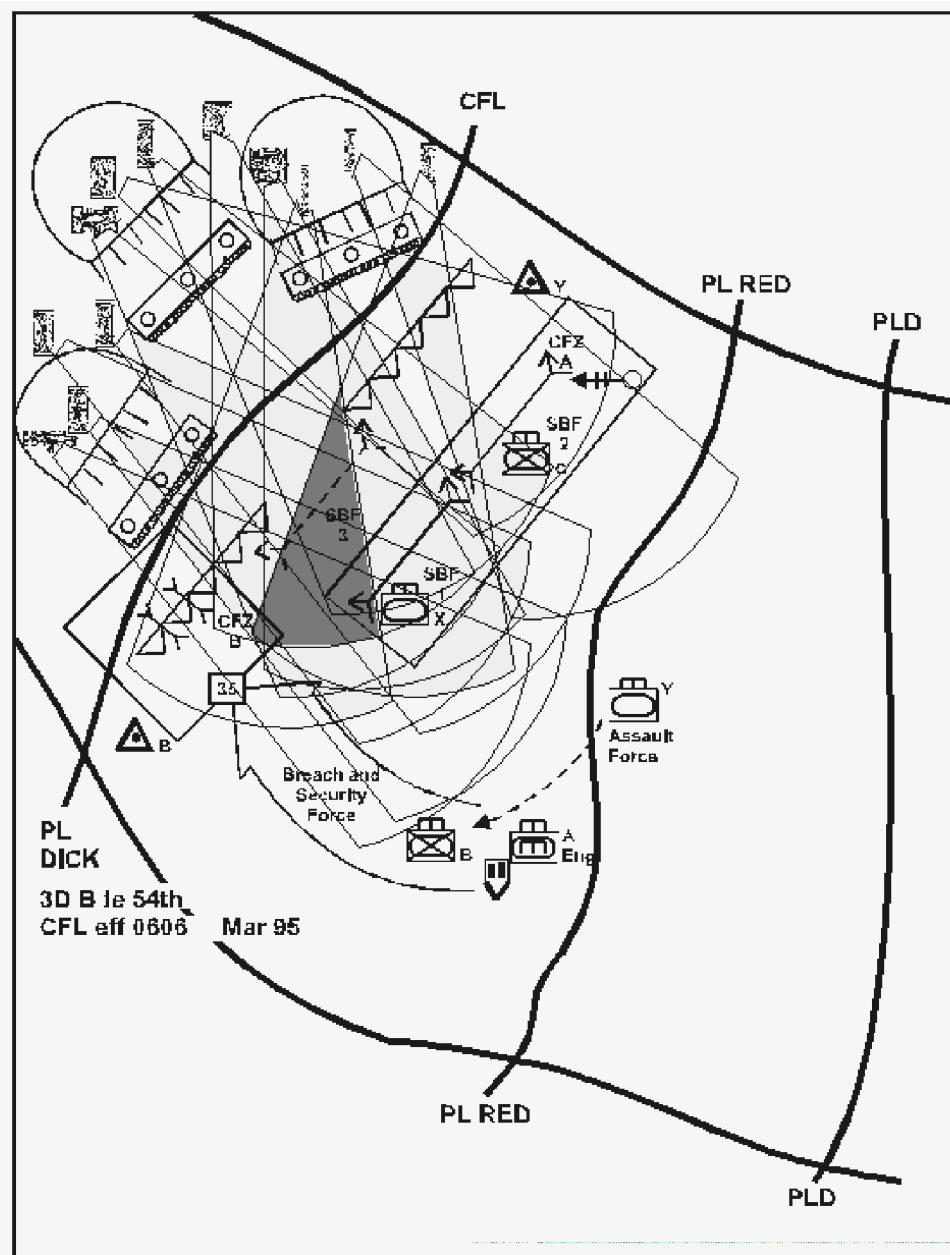
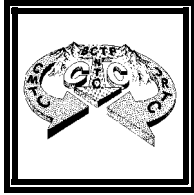
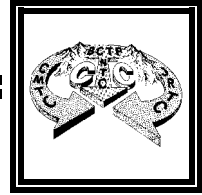


Diagram No. 2
Task Force Graphic with Vulnerability Analysis



2. Company/Team commanders must also do their own vulnerability analysis, applying the **seven forms of contact (FM 17-15)**:

- * **visual**
- * **direct fire**
- * **indirect fire**
- * **obstacles**
- * **CAS/rotary-wing threat**
- * **NBC**
- * **electronic/jamming**

A. Depict these forms of contact *in detail* on the situational template.

B. During rehearsals: determine the *when and where* contact is likely to occur.

C. Develop and rehearse specific actions to take for *each type of contact* expected.

Remember, *each form of contact exhibits its own unique ability to break down unit formation integrity, and the ability to achieve speed, mass and momentum.*

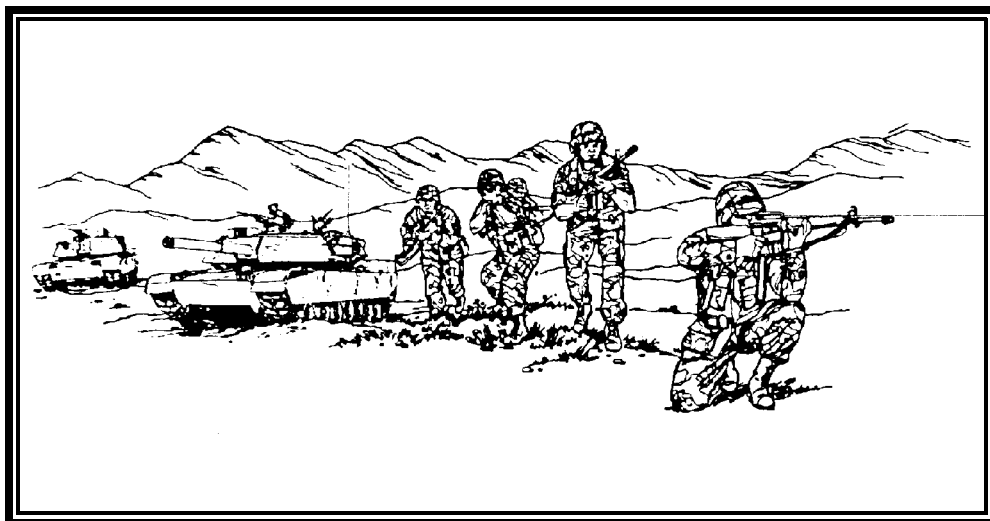
3. Initially, the SITEMP visualizes how we think the enemy will fight. We have to confirm the SITEMP through our R&S effort, or by developing the situation when in contact. Purpose is to:

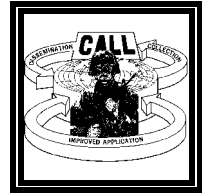
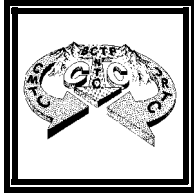
A. Determine where to begin bounding overwatch.

B. Help units acquire, and thereby destroy enemy weapons systems.

C. Indicate and focus, through analysis, where to breach or what to bypass.

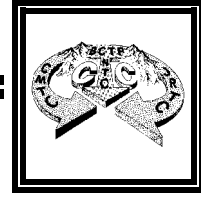
Use the chart on page 23 to help situationally template and develop range fans:





EFFECTIVE ENEMY WEAPONS RANGES (MILES)

<i>VEHICLE</i>	<i>WEAPON</i>	<i>TYPE</i>	<i>RANGE</i>
T-80	MAIN GUN	125mm	2500m
	MISSILE	AT-8	3750m
	COAX	7.62	800m
BMP-1	MAIN GUN	73mm	800m
	MISSILE	AT-3	3000m
	COAX	7.62	800m
BMP-2	MAIN GUN	30mm	2000m
	MISSILE	AT-5	3750m
	COAX	7.62	800m
BRDM	MISSILE	AT-5	3750m
2A45	AT GUN	125mm	2000m
SA-14	AD MSL		4000m
AAA		23mmX4	2500m
IRSAM	SAM	SA-9	6000m
AVENGER	AD MSL		6000m
HIND-D	MAIN GUN	30mm	1500m
	ROCKET	57mm	3000m
	MISSILE	AT-6	3750m



MOVEMENT versus MANEUVER

FM 71-1(1988) states that “Maneuver consists of fire and movement.” A base of fire element provides suppressive fires that allow moving units to achieve positions of advantage that deliver more lethal fires upon the enemy. Through maneuver, the enemy is eventually killed. It is critical to note that the destruction of the enemy occurs from a position of advantage that was achieved through movement, made possible by fires. The terms *base of fire* and *overwatch* are not synonymous. As units conduct movement, the overwatch element observes friendly movement and can respond with immediate suppression of enemy positions engaging the moving element. If the enemy is not visible and does not engage the moving force, *the overwatch element does not necessarily fire*. On the other hand, when units conduct tactical maneuver, the *base of fire always fires to support the moving unit’s assault*. S.L.A. Marshal, in *Men Against Fire*, stated that the relationship between fire and movement is so interwoven that “to fire is to move.”

PROBLEM:

1. Company/Teams have great difficulty transitioning *from movement, where units bound forward supported with an overwatch element, to tactical maneuver, where an active base of fire covers forward progress*.

EXAMPLE: Observer/Controllers (OCs) see too many instances of Co/TMs moving in traveling overwatch right into the enemy fire sack, where the Co/TM is destroyed very quickly.

2. Too many units *develop schemes of movement, not schemes of maneuver*.

EXAMPLE: The OPORD discusses the methods of movement between the assault position and the objective, rather than specifically detailing how the Co/TM plans to achieve its assigned objectives, closing with and destroying the enemy, or holding its assigned area.

3. Too many offensive plans reflect thinking that an attack is an assault to *run over the enemy*, rather than *moving to a position to kill the enemy with fire*.

Technique: Develop schemes of maneuver for offensive missions reflecting how the unit intends to *methodically and deliberately destroy the enemy*.

Look at DIAGRAM No. 3 below. This shows the relationship between **movement**, *based on the likelihood of contact*, and **maneuver**, *when the unit is in contact*.

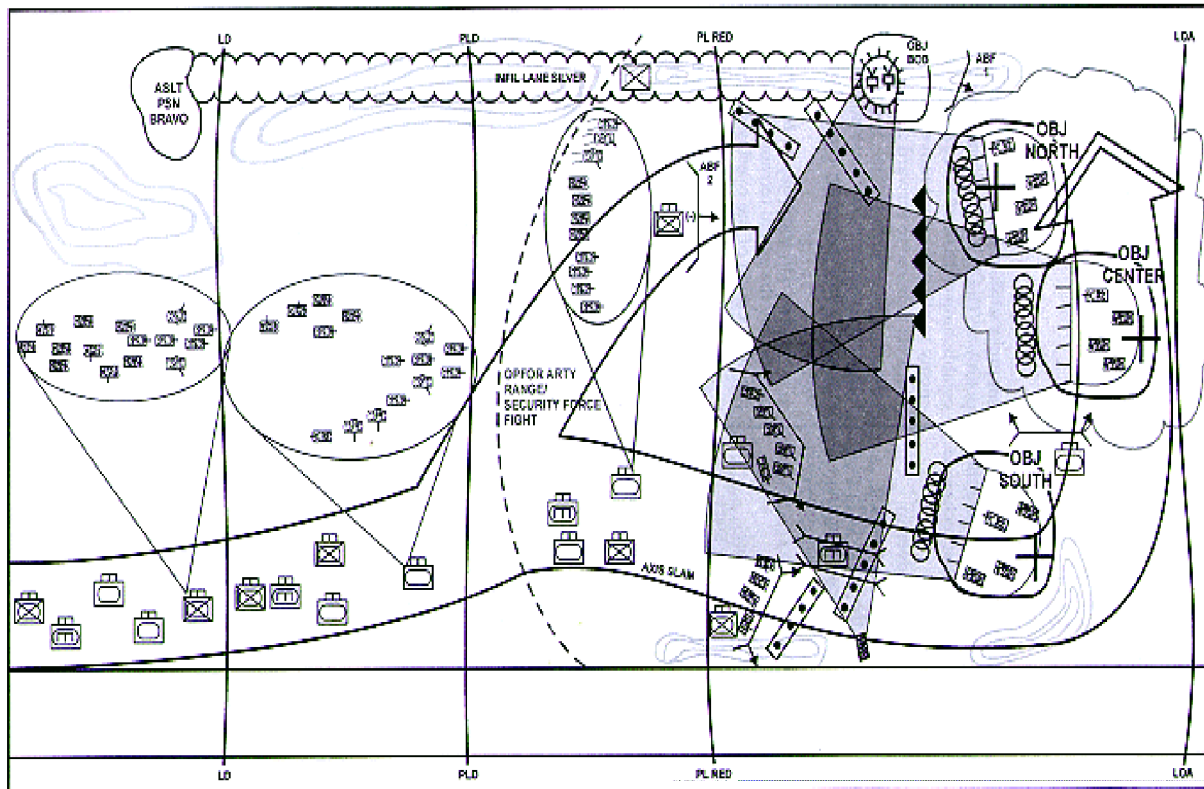
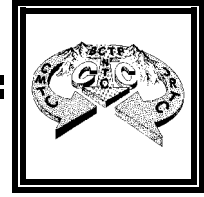


Diagram No. 3
Transitioning from Movement to Tactical Maneuver



PROBLEM: Many commanders have difficulty designating the proper movement technique and the formation best situationally suited for that technique.

EXAMPLE: The SBF element moves to occupy its SBF position in a traveling formation. The Co/TM moves and occupies the *exact GPS grid* designated by the graphic control measure on the overlay. This position, as discussed earlier, is *within range of enemy direct fire weapons*.

RESULT: The SBF element becomes decisively engaged, likely destroyed, or at least rendered ineffective as an SBF element. While establishment of an SBF position is no guarantee of the success of an attack, *the destruction of the SBF element before occupation of the position during the initial Red Zone fight will significantly diminish the attack's chances for success.*

Techniques:

1. Units must *deploy*, rapidly and smoothly, transitioning *from movement to maneuver when entering the Red Zone.*
2. Assume that establishing the SBF position *will require an attack into that position*, rather than a mere occupation. Artillery must be used to

suppress while the Co/TM maneuvers to occupy its position. The Co/TM must maneuver by establishing a **Base of Fire**, that actively fires on the enemy to allow forward movement of platoons. Platoons then move forward through a series of well-rehearsed **Set/Move Drills**. We will discuss later how units also establish mass and provide mutual support as they maneuver forward to close with the enemy.

3. The SBF location, *on the ground*, must be dictated by the actual terrain and situation, not by the precise location of the overlay symbol.

4. *Plan* to accept the risk associated with advancing into the Red Zone, i.e., becoming decisively engaged and thereby losing some maneuver options.

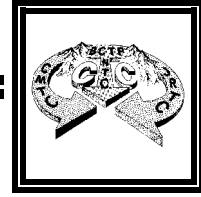
5. To maximize the ability to maneuver, *plan* how to achieve and maintain fire superiority - from brigade down to squad level.

Historical precedent says clearly that whoever wins this initial contest for fire superiority will gain immediate initiative to *influence subsequent events*. Understand also that to maintain fire superiority, *suppressive fires may be more important than destructive fires.*



“... the action of opening fire immediately into the area which the enemy is believed to be holding, instead of waiting until several of one's own tanks have been hit, usually decides the issue.”

-- The Rommel Papers



MASS AND MUTUAL SUPPORT

Mass is not just bunching up combat vehicles. Rather, units maneuver to mass weapons *effects*, not systems. Units are successful when they effectively maneuver to outnumber the enemy at a given point - putting the enemy at a disadvantage in each engagement.

All commanders desire tight, agile formations that are capable of responsive mutual support and timely massing of combat power at the decisive point. How units echelon and present themselves into the red zone is another factor critical for success.

PROBLEM: For example, your SOP may call for a distance between vehicles of 100 meters and gaps between company teams from 150 to 200 meters. However, few units can maintain these standards. Dust, confusion, smoke, various levels of driver skills, as well as enemy chemical strikes, artillery, FASCAM, CAS, and EW jamming, all contribute to a gradual, yet constant, elongation of the formation.

RESULT: Unit formations become spread over many kilometers and are incapable of providing mutual support. Rather than massing at the decisive point, units present themselves into the red zone, usually one platoon at a time, as the lead Co/TM attempts to move forward. The attack slows to the speed of the leading element, that is usually unsupported and exposed in the red zone. Often, formations that are initially spread too far for effective control stop and close together very abruptly - in the best direct-fire range of the enemy. The energy of the task force shifts from a violent, aggressive attack to a slow, passive crawl. Very few

vehicles actually engage the enemy, and momentum is lost.

Techniques: for fighting in the Red Zone

1. Conceive a series of *unfair engagements* - unfair to the enemy because we mass more effects than the enemy can handle. Similar to an effective blitz in football where more men rush than can be blocked.

2. Avoid *piecemealing* into enemy defenses. Develop a time/distance analysis in conjunction with your scheme of maneuver. For example, the TF may elect to adopt an advance guard formation, anticipating early contact with forward enemy CSOPs. Based on the time it would take for the lead Co/TM to either fix or destroy the enemy CSOP, the main body is no farther behind than the time required to close and push into the red zone as a total combined arms team. For example, anticipating a 6-minute fight to destroy forward enemy elements, the TF main body travels 6 minutes behind the advance guard Co/TM. On contact, the TF can then mass effectively and maneuver with deliberation into the red zone. Factor in, during planning, wargaming, and subsequent rehearsal, enemy combat multipliers such as:

- * artillery
- * CAS, both fixed and rotary
- * chemical munitions
- * minefields
- * obstacles

These multipliers serve to disrupt unit formations and unit integrity. By anticipating the employment of these combat multipliers, units can structure their order of battle, and develop a scheme of maneuver to confidently enter the red zone.



SUPPRESSION

PROBLEM: Too many units maneuver *without* the support of effective, suppressive direct fire in the Red Zone.

RESULT: Too many BLUFOR elements die in the Red Zone, unable to accomplish their mission.

What is suppression? **FM 17-12-1, Tank Gunnery**, defines suppression as “fires on or about a weapon system to degrade its performance below the level needed to fulfill its mission objectives during the conduct of the fire mission.” *In other words*, to prevent the enemy from shooting and killing us.

Remember the cowboy movies you watched as a kid . . . where the guys pinned down behind the water trough popped up, guns blazing to suppress the bad guys in the shack, while their buddy maneuvered “round back” . . . well, the blazing guns trained on the shack was suppressive fire from an overwatch position. This fire kept the enemy busy . . . kept their heads down . . . allowed successful maneuver so the good guys could assault.

In maneuver warfare, the objective of suppression is exactly the same - effective, suppressive fires allow *freedom of maneuver*, enabling tankers and infantrymen to occupy better firing positions, from where they can shoot destructive direct fires at the enemy. *The enemy will not expose themselves to what they think is deadly fire.* Heavy suppressive fires from a base of fire and violent execution are still the best means of conducting the assault and guaranteeing momentum. In addition to suppressing the enemy, a heavy volume of friendly fire will encourage our attacking troops to move forward into the assault. Assaulting soldiers will be inspired by their own force’s fire

superiority. The enemy’s initiative will disappear and the will to resist will diminish.

At first contact: *Accuracy is less important than volume.*

PROBLEM: Too often commanders state their task and purpose as “suppress in order to destroy,” as part of the mission to occupy a support by fire position (SBF) during an attack. This causes tank crews to hesitate - to wait for the perfect Tank Table VIII killing shot.

RESULT: a low volume of suppressive fire that fails to adequately support the assaulting force, allowing the enemy to kill them far more easily.

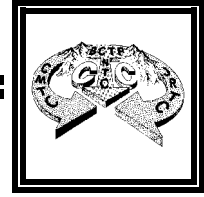
Techniques: the support force commander must do the combat arithmetic. He must determine *how long he can suppress*, based on his sustained rate of fire.

1. The commander determines how long the support force can suppress.

2. The commander determines how long the assault/breach force will need suppression to achieve a penetration of enemy defenses, or to maneuver to break through the enemy’s FLOT.

3. Do these calculations initially during *wargaming*; refine during *rehearsals*; then, *cross-talk* during execution.

4. Know the respective strengths and weaknesses for each weapon system during suppression, i.e., sustained rate of fire; number of rounds available; effect of different munitions; maximum effective range; probability of hit/kill at various ranges, etc.



EXAMPLE: use Bradleys to suppress enemy positions *when the enemy drops down from his firing position*. When the enemy moves back up to fire, *slam him immediately with M1 fire*.

5. **EXAMPLE:** *Task and Purpose:* for company team missioned to support the assault force:

“Provide suppressive fires to prevent attrition of the assault or breach force.”

6. When the objective is for the assault force to kill the enemy, this objective is best achieved by maneuvering to a position of advantage, then killing the enemy. This maneuvering to an advantageous

position is *made possible by effective direct fire suppressive fires*. There are three possible positive outcomes of suppression:

A. The enemy is killed.

B. The suppression is close enough to force the enemy to seek cover, and, therefore, not be shooting at the assault force.

C. The enemy reduces his exposure time, because of the volume and effectiveness of the suppression, and, therefore, again, is not shooting at the assault force.

These positive results of suppression *only occur* when the fire is sustained and effective, for the duration of the assault/breach.

SURVEILLANCE TECHNIQUES/TARGET ACQUISITION

The enemy at the NTC employ a series of techniques which assist them in surveillance and subsequent target acquisition.

Enemy Techniques:

1. **FIRST READ:** minutes before crossing the LD, disseminate the most up-to-date information on enemy dispositions to every element conducting the attack.

2. Junior leaders must have graphics:

- ✓ assists in the maneuver
- ✓ keeps them situationally aware
- ✓ reinforces commander's intent
- ✓ forces them to focus on areas where

the enemy is likely or expected to be

3. Very rarely will a BLUFOR tank commander have known enemy positions on his map, even when scouts have died to get that information to him.

4. Identify reverse slopes, base of slopes and other likely weapon positions, and then *assign*

responsibility for these locations (as Target Reference Points, TRP) to specific maneuver elements; during movement these areas must be watched carefully.

EXAMPLE: Co/TM commanders assign TRPs while on the move. Once platoon leaders identify a TRP, they assign *sectors to scan*. Once a crew identifies indicators, such as spoil, an antenna, a reflection, or an exhaust plume, the *gunner stays locked on it. He can no longer scan*. The tank commander tells the platoon leader he's no longer scanning.

Either the platoon leader, or the Co/TM commander readjusts the sectors of surveillance to cover the area left unobserved by the crew locked onto a possible target. *The crew locked on must be prepared to kill immediately if the enemy is exposed.*



IF the locked-on vehicle must move, the crew must positively hand off the target to *a new overwatch element*.

Tank and Bradley crews must be proficient in switchology, i.e., switching from low to high power, and from day to night while searching for enemy indicators. Each mode has advantages and disadvantages. Crews must be proficient in switching between each to make maximum use of the advantages of each.

PROBLEM: *target fixation*, or failure to maintain all-around security once in contact. When engaged by the enemy, all guns tend to swing in the direction of the enemy fire.

RESULT: enemy tanks, or ATGMs hidden or offset, are then able to kill BLUFOR vehicles *without ever being detected*.

Technique: maintain vigilant security in all directions, especially during contact. Anticipate additional enemy contact from directions other than the initial enemy direct fires.

COMBINED ARMS SUPPORT OF MANEUVER

Using Artillery, Mortars and Close Air Support

PROBLEMS:

1. Artillery schemes of fire are not synchronized with the scheme of maneuver.
2. Too many Fire Support Officers *shoot the plan, but not the enemy*.
3. Adjusting fire is *not a priority training event, even for forward observers* within the artillery community; a *first-round - fire-for-effect* execution mentality has evolved. Virtually every fire mission is a GLIDD-delivered, 10-digit grid from the observer directly to the battery operation center, to the guns.
4. When brigades plan *only deep operations* and leave the close and rear planning to the task forces, the transition *from deep to close will never occur as desired by the brigade FSO*.

RESULTS:

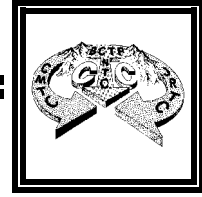
1. Too many tankers and infantrymen are unable to get directly into the fire support system and call for and adjust fire, including obscuration

smoke. Gun battery commanders respond only to brigade and/or task force FSOs.

2. Too many units attempt to use artillery to “kill” the enemy before the maneuver elements close within the Red Zone. However, the inordinate number of artillery rounds needed to *kill* combat vehicles, or even to *neutralize* them, makes such requirements totally unrealistic given the relatively limited number of available rounds. This leaves too few rounds *available for suppression* during the actual assault/breach. (Further compounding the problem is the recent reduction of batteries from 24 to 18 guns per battery.)

Techniques:

1. Implement a flexible enough system of fire support that allows tankers and infantryman to call for and adjust indirect fire. They are still trained to do so by officer and NCO educational systems. Such branch/MOS training, however, must be augmented by hands-on application at Home Station.



Then, this training must be applied during FTXs and CTC rotations, as further preparation for actual combat missions.

2. To control indirect fires from battalion/task force level:

✓ **establish a series of minimum safe lines (MSLs).**

✓ **as companies move forward, commanders request MSLs be placed *in effect*, based on their GPS grid. *RESULT*: artillery is never *shut off*, but continues to roll forward over enemy positions.**

✓ **when company/team commanders place MSLs in effect, they also help synchronize fires with maneuver. *RESULT*: supporting indirect fires actually support the ground maneuver, as it takes place, rather than simply supporting the initial plan.**

3. To transition more smoothly from the deep to the close battle: have brigade plan the fire support battle *throughout the zone or sector* as one continuous fight.

4. Close Air Support (CAS) is more appropriate to plan for *killing* the enemy than field artillery or mortars.

5. Field artillery must be fired *continuously* for extended periods of time to achieve the desired effects, i.e., Suppression. Therefore, calculate the time required to suppress and the number of rounds necessary.

EXAMPLE: once the lead Co/TM is about to enter the Red Zone, artillery must suppress the enemy to allow the SBF force to get into position relatively intact, and thus capable of accomplishing its mission. Then, the artillery must suppress/obscure the objective, allowing the assault/breach force to maneuver to an advantageous position to kill the remaining enemy. Therefore, the artillery must be lifted and shifted off the objective as the ground assault force moves within 800 meters of the objective.

6. All these events must be *planned for, wargamed and rehearsed* prior to execution.

TEMPO and COMBAT PATIENCE

Successful deliberate attacks most likely occur when you have:

✓ **a reasonably accurate read on the enemy disposition**

✓ **effective artillery suppression and smoke obscuration**

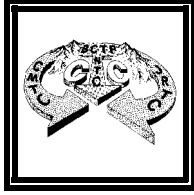
✓ **a three-to-one force ratio in direct fire suppression**

PROBLEM: commanders must know instinctively and intuitively when to go fast, in *blitzkrieg* fashion, to exploit success; when to *slow down* and allow conditions for success to *develop and build*.

Controlled, deliberate movement may not take as long as many commanders are led to believe. Invariably it takes *longer to lose the lead Co/TM, then have to pause . . . reconfigure the task force to do the same job . . . occupy a SBF . . . then to do the mission right by controlling the tempo in the beginning.*

“There are times on the battlefield for controlled movement, and there are times for rapid controlled movement . . . but always controlled.”

-- BG Wallace, Commander, Fort Irwin



EXAMPLE: controlled, deliberate movement is similar to what a running back, who possesses blazing speed, does as he effectively follows his more slow-footed blockers - until that split second when the field opens and the runner bursts into the clear.

Technique: know when to use a *tactical pause*, i.e., the time needed to move an artillery battery to a new firing position, conduct a refuel on the move, adjust obscuration smoke, or to allow commanders to *develop the situation*. Knowing when to employ a tactical pause, and how long to pause is a function of training and experience, initially gained at Home Station.

USE OF INFANTRY

Dismounted infantry offers an attacking unit a *maneuver asset that is underutilized*.

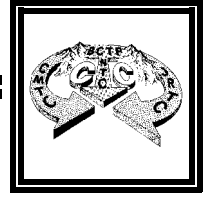
PROBLEMS:

1. Too often infantry squads are not integrated into the Battalion/TF scheme of maneuver.
2. In too many instances where squads are integrated into the plan, mechanized infantry fail to dismount in time to be a combat multiplier.
3. When infantry soldiers do dismount, they are not given a clear task and purpose.
4. Too often the infantry are not used in conjunction with the M1A1 tank and/or the Bradley Fighting Vehicle.

RESULT: The infantry become Red Zone casualties as their vehicle is destroyed.

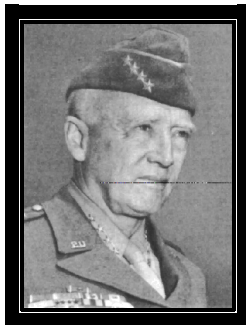
Techniques: for employing mechanized infantry:

1. Use infiltrating infantry to clear passes and defiles, or other restrictive terrain to increase the brigade and task force movement optempo.
2. Use infantry to *attack along an assailable flank*, thus forcing the enemy to apply combat power against *diverse elements and in different directions*.
3. Use infantry squads to augment the scouts in their reconnaissance efforts, and in the effort to get *eyes on the objective* early.
4. Infantry, infiltrating along restrictive terrain, can unhinge a flank MRP and pre-breach an obstacle.
5. Use infantrymen to conduct a supporting attack or to conduct feints to deceive and confuse the enemy.
6. Use infantrymen, as appropriate, to assist in the maneuver to an advantageous position by guiding tanks and Bradleys to positions where they can effectively fire on the enemy.



EFFECTIVE USE OF TERRAIN

To be effective in the Red Zone, tankers and infantrymen must be masters at *reading and manipulating the terrain*.



“The quickest way to get to heaven is to advance across open ground swept by effective enemy antitank fire . . . tanks will insist . . . on crossing skylines or emerging from cover without looking, in spite of the fact that it is well known the enemy antitank weapons are generally on reverse slopes or in positions to fire at right angles to the axis of advance The only cover behind which a tank has any security is that afforded by earth defilade.”

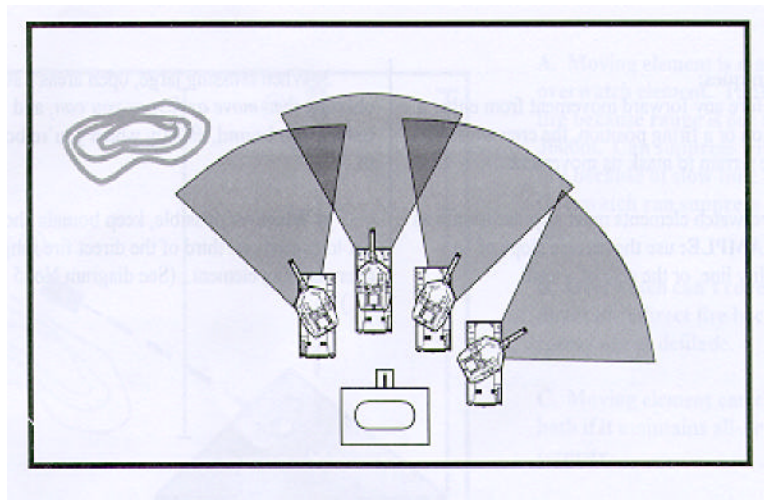
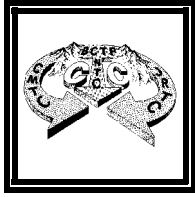
-- George S. Patton, Letter of Instruction Number 3, 1944

PROBLEMS:

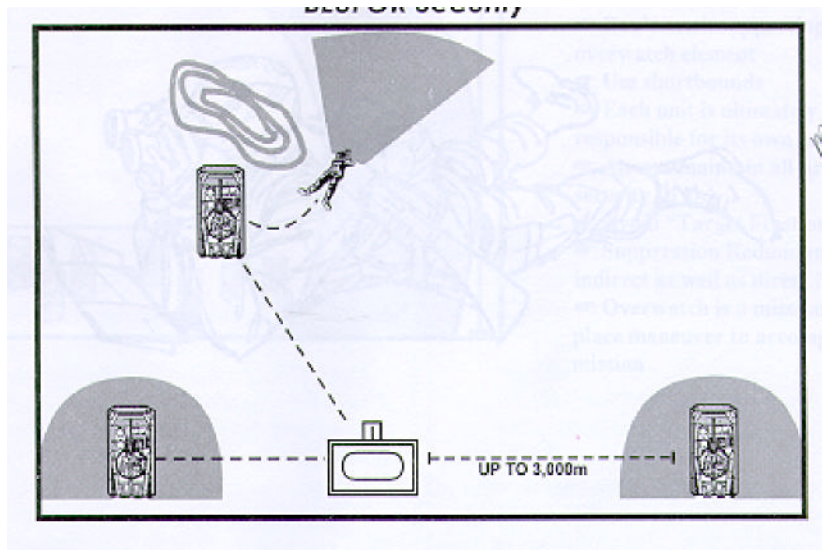
1. BLUFOR elements habitually *pull forward* from overwatch positions, thus exposing themselves to the awaiting direct fire of the enemy.

2. Too often units mask or overextend the protective range of the overwatching element.

3. Too many units do not have adequate flank security; too many units think they've achieved security if their gun tubes are oriented at 9 o'clock to 3 o'clock. The diagram below compares observed BLUFOR techniques with those of the more successful enemy.

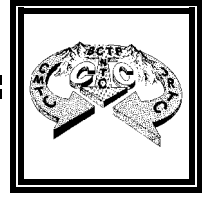


BLUFOR Security



Enemy Security

Diagram No. 4



Techniques:

1. Before any forward movement from either a hide position or a firing position, the crew must back up and use terrain to mask its movement.

2. Overwatch elements must also use terrain as cover; **EXAMPLE:** use the reverse slope of an intervisibility line, or the side of a wadi.

3. When crossing large, open areas - suppress, obscure, then *move as fast as you can*, and know **before you bound**, exactly where you're bounding to.

4. Wherever possible, keep bounds short. Try not to exceed one third of the direct fire range of the overwatching element. (See diagram No. 5 below.)

A. Moving element is masking the overwatch element. Tanks can't fire because range is out to 3000m. Can't suppress with TOW fire because of slow time of flight. Overwatch can suppress with indirect fire.

B. Overwatch can't cover with direct or indirect fire because of enemy use of defilade.

C. Moving element can cover both if it maintains all-around security.

LESSONS:

- ☛ Don't mask supporting overwatch element
- ☛ Use short bounds
- ☛ Each unit is ultimately responsible for its own security
- ☛ Always maintain all-around security
- ☛ Avoid "Target Fixation"
- ☛ Suppression Redundancy - use indirect as well as direct fire
- ☛ Overwatch is a mission, not a place. Maneuver to accomplish the mission

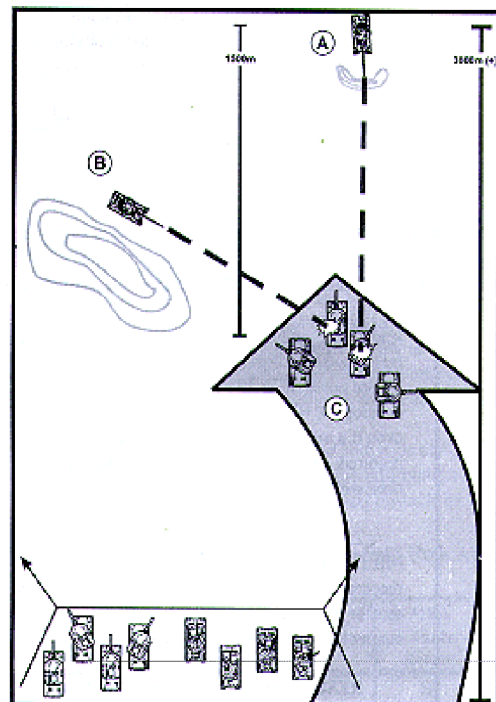


Diagram No. 5
Overwatch Considerations



5. Every element must be responsible for its overall security.

6. Flank security: consider moving flank security elements *out to the maximum weapon range away from the main body*. **EXAMPLE:** if your unit could be fired upon by enemy direct fire weapons effectively from 2,500 meters, then move

flank security out to 2,500 meters. This helps protect the main body. This technique is obviously *terrain dependent*.

7. Routinely dismount from these extended security ranges and scan the next area with binoculars.

DEVELOPING THE SITUATION

Once you make contact with the enemy, the battle never quite unfolds exactly like the rehearsals, the templates, or the schemes of maneuver brief say they will.

Therefore, what can be done to create the greatest likelihood of success once you are in contact and required to develop the situation?

Techniques: developing the situation is a reconnaissance action, the objective of which is to find out enough about the enemy to defeat him while maintaining your own freedom of action, and hiding your strengths and limitations.

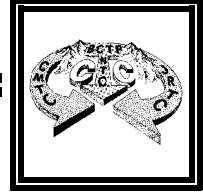
1. Ideally, the assault force will have a thorough knowledge of the enemy's disposition before committing to action. But, combat demands the assault force must be prepared for considerably less than the best circumstances. In many situations, the reconnaissance elements will be relaying their reports to the assault force commander once the sun is up and the attack is underway. An effective advance guard company can also assist with accurate reports. If the assault force commander cannot physically conduct a leader's reconnaissance, he may only get a visual reconnaissance through binoculars from a support

by fire position. In all cases, the assault force must develop the requisite intelligence of the objective, even if a momentary, local tactical pause is required. *Time spent on reconnaissance is never time wasted.*

2. Although difficult to replicate with MILES, one time-tested TTP worth discussing is reconnaissance by fire: defined as **“placing direct and/or indirect fire on positions the enemy is suspected of occupying.”** FM 17-97.

RESULT: causes the enemy to disclose his position by either moving or by returning fire. (**NOTE:** *The effectiveness of this technique is directly proportional to the enemy's level of training and discipline.*) Use reconnaissance by fire when:

- ✓ time is critical
- ✓ natural or man-made obstacles that could be overwatched by an enemy force are encountered



- ✓ a suspected enemy position fits the situational template
- ✓ bunker complexes that may or may not be occupied are encountered
- ✓ enemy locations are known

To develop the situation:

- ✓ maneuver platoons laterally to try and find enemy flanks
- ✓ avoid decisive engagement
- ✓ do not try to close with the enemy
- ✓ maintain freedom of maneuver

Indicators of enemy intentions: *examples of how to read the battlefield:*

✓ can you move to the enemy's flank without receiving fire from other positions? If so, you may have encountered a CSOP or the flank of an MRP in a security zone. If not, you've probably found a larger element.

✓ how much indirect fire is the enemy calling? Heavy fires indicate larger defending

units and strong defenses; accurate fires indicate a forward observer has you visually.

✓ are enemy vehicles moving into hasty frontal firing positions? Can you see dust and diesel plumes? These *all indicate a moving enemy force*. Obstacles and prepared positions don't.

✓ what is the distance between enemy vehicles and weapon systems? Dispersion of 100 to 200 meters with tanks behind infantry *indicate a prepared defense which is at least company size*. Vehicles spread out by themselves 300 to 400 meters apart usually reveal an MRP that is spread thin.

✓ mines and wire are *always overwatched by direct fire weapons - spot them before they spot you*.

This kind of information is critical to develop not only the battalion/TF fight, but also the brigade fight.

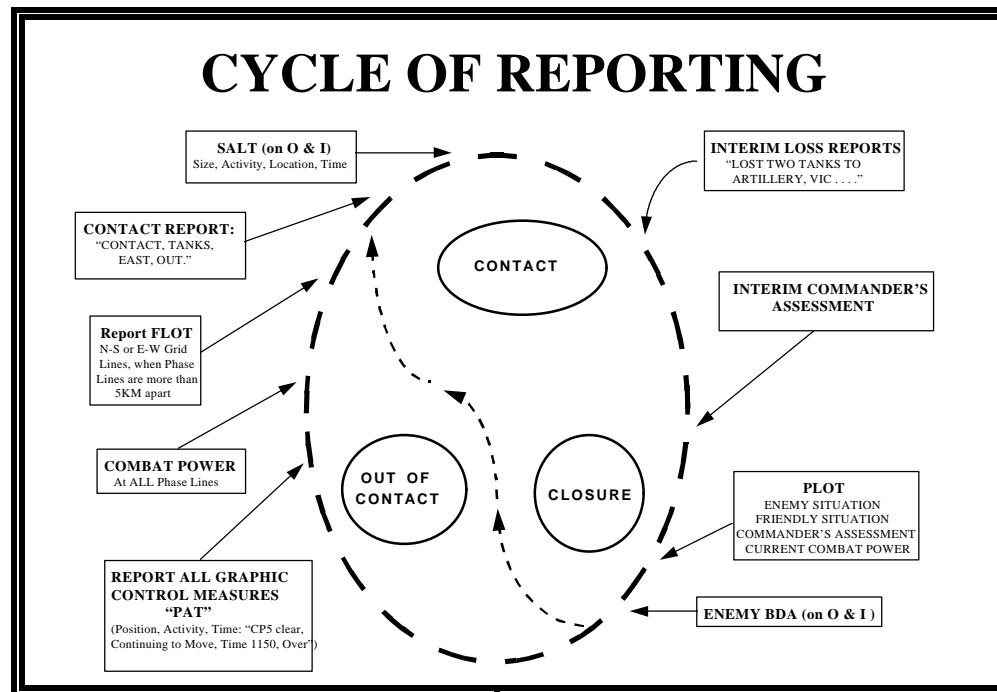
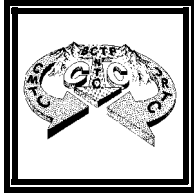
BATTLE COMMAND

When the shooting starts, the maneuver phase of the battle is underway. Reports are expected. These reports are critical to developing a *read* of the battlefield, and in keeping the commander informed.

Procedure: Cycle of Reporting, informing the commander about the following:

- ✓ what is to my front?
- ✓ what is the enemy doing?
- ✓ what are we doing?
- ✓ what are we going to do?

A cycle of reporting should be an integral part of the unit TACSOP (see diagram on next page).



Commanders can't be everywhere, and they can't see everything. Timely reports can facilitate teamwork and synchronization. **EXAMPLE:** Use whatever element is in the best position to see the battlefield to guide other elements to a position of advantage. The guiding element can drop down on the command net to give instructions to get the other element to the right spot.

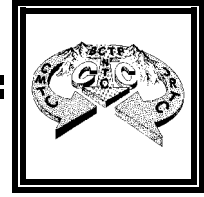
2. Rehearse command assumption. Do *what if?* drills, where the order of command is different than that specified in the OPORD, since casualties usually don't occur in the same sequence. At all times, the officer in charge had better know they're in charge. Therefore, as leader casualties occur, the new chain of command must be announced, and the new commander must take charge immediately.

PROBLEMS:

1. In an attempt to control Co/TM bounding overwatch, many TF commanders graphically identify specific SBF positions, and/or a series of specific SBF positions. **RESULT:** decreased Co/TM maneuver flexibility, especially when the actual terrain dictates SBF positions different than those originally specified.

2. Too often Bn/TFs fail to give clear task and purpose to the SBF element.

Techniques: for Battle Command of SBF elements: Specify an axis of advance to the SBF element. If a Co/TM, for example, the axis will allow the commander to bound by platoons, using the terrain to his advantage. And to move forward, steadily and deliberately, according to the terrain. The SBF element can then move to occupy the best SBF position dictated by the actual terrain that still allows mission accomplishment.



CONCLUSION

To effectively win in the Red Zone requires closely coordinated, synchronized combined arms operations. The ability to win is built at Home Station, through rigorous, repetitive training that is conducted to standard.

As training budgets dry up as a result of recent downsizing, computer based “virtual reality” training has been heralded as an effective, cost-efficient training substitute to field maneuver training. As a result, much of today’s Home Station training, especially for commanders, is computer based. Icons on a computer screen move and converge until they make contact. The simulation calculates what happens, and the results, as units *engage each other* in this computer warfare, are statistically evaluated. Commanders take their hands off the computer key pad and “watch” to see who will be victorious. The killing is remote and hands-off.

As commanders bring their units to combat at the NTC, too often their prior training leaves them unable to articulate specific and detailed plans on *how to* effectively destroy the enemy. Commanders do address movement and formations . . . they address occupation of SBF positions . . . movement through the breach . . . even how they intend to *work* an objective.

What is sorely lacking, however, is the specifics on how to fight and kill the enemy within the Red Zone, as rounds are flying and soldiers are potentially dying . . . as the unexpected,

unanticipated occurs and the survivors are those quickest to adapt to the reality of the moment . . .

The *fog of war* is nowhere as prevalent in the relatively pristine environment of computer simulations. The conditions of war on the ground are totally different. Organic communication equipment which are used during simulations are often bypassed due to the proximity of the workstations. The face-to-face interaction that develops between participants is often not feasible or possible in a combat zone. Orders and instructions are often physically passed to subordinates who, in turn, immediately key punch necessary data with near precise results. Because of the unrealistic nature of computer simulations, they do not allow the commander the ability to develop the intuitive feel and rhythms of a modern battlefield, or for where he should position himself to actively influence events. The net result is far too many ground maneuver commanders never develop their abilities to gain what should become an intuitive feel for the pace and rhythms of battle. Without realistic maneuver training, the realities of dust, sweat, blood, and confusion swirling around them as they make the life and death decisions inherent in Battle Command are never realized.

The fix. Certainly part of the answer lies in the effectiveness of Home Station training. T&EOs specifically addressing actions in contact must be developed, fielded and then used, over and over.

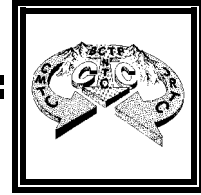


George C. Marshall observed the same phenomenon between World War I and World War II. In his 1939 introduction to *Infantry in Battle*, he wrote:

“There is much evidence to show that officers who have received the best peacetime training available find themselves surprised and confused by the difference in conditions as pictured in map problems and those they encounter in campaign. This is largely because our peacetime training in tactics tends to become increasingly theoretical. In our schools we generally assume that organizations are well-trained and at full strength, that subordinates are competent, that supply functions work, that orders are carried out. In war many or all of these conditions may be absent. The veteran knows this is normal and his mental processes are not paralyzed by it”

Valuable training encourages leaders, through experience, to develop the mental filters to distinguish between what is crucially important on a battlefield, and what can be safely ignored. It teaches individual soldiers how to survive and deliver lethal violence on the enemy. ★

***NOTE:** This article was based on a class and resulting discussion that was delivered by COL James Grazioplene, the Commander of Operations Group at the National Training Center, and LTC Peter Palmer, the OPFOR Commander of 2nd Squadron, 11th Armored Cavalry Regiment. Also James Crowley of the RAND Corporation contributed valued input. All diagrams were developed by CALL's graphic artist, Cathy Elliott. Stay tuned to future CALL publications for a more detailed Newsletter that will provide T&EOs, as well as home-station training strategies, for actions in contact and closing with the OPFOR, currently being developed by the National Training Center.*



The PLGR: Techniques and Procedures Forward Observer s Can Use To Bring Rapid, Accurate Indirect Fires to the Close Fight

by MAJ Joseph F. Napoli and SFC Sean E. Harris, JRTC Fire Support Observer/Controller s

PROBLEM: the inability of Forward Observers (FOs) to rapidly initiate fires because of difficulties determining an accurate target location, a particularly difficult task under the following conditions, all common to the Joint Readiness Training Center (JRTC):

- ☛ restrictive terrain
- ☛ limited visibility
- ☛ restrictive Rules of

Engagement (ROE)

RESULTS:

1. Indirect fires are seldom used and/or seldom effective in the close fight because of a fear of potential fratricide and collateral damage.

2. The BLUFOR casualty rate is significantly higher than the OPFOR's, in great measure, because of the lack of effective indirect fires.

This article focuses on some specific *How To* in using the Precision Lightweight GPS

Receiver (PLGR) during mission planning, preparation and execution. Additionally, the article covers some training techniques to employ at Home Station to build proficiency with the PLGR prior to deployment.

Specifically, we'll focus on how to best use the PLGR to:

- ☛ locate targets
- ☛ how to best use the PLGR in conjunction with planned targets

Movement to Contact Operations (Approach March or Search and Attack Missions)

During these missions, FOs, walking with their supported platoons, must be prepared to request and then adjust indirect fires quickly and accurately when the platoon makes contact.

Procedures: applicable to pre-movement planning and preparation

1. Conduct Fire Planning:
 - ☛ plan targets along the intended route
 - ☛ establish a net to talk directly to one or more fire support assets

- ☛ identify a dedicated fire support asset to lay on priority targets

- ☛ identify what actions are expected upon contact with each high payoff target

- ☛ confirm the SOP for immediate suppression missions with each fire support asset in support of the company/team

2. Conduct Mission Preparation

- ☛ rehearse the modified call for fire with the fire support asset

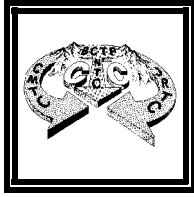
- ☛ rehearse the planned targets along the route with the FDC

- ☛ conduct radio checks with the FDC, Co/TM FSO, Battalion FSO

- ☛ conduct pre-combat checks with the PLGR

- ☛ rehearse the platoon battle drill, *React to Contact*, including the FO's actions

- ☛ load planned targets as waypoints in the PLGR



3. Specific, additional FO mission preparations:

- ☛ confirms that his PLGR works, *prior* to leaving the assembly area or patrol base

- ☛ positions the PLGR on his LCE *so he can read the screen at a glance*

- ☛ the *automatic off* function on the FO's PLGR *should be off.*

- ☛ calls the supporting fire support asset, instructing them to lay on the first target planned along the route

- ☛ switch to the NAV function; confirm direction and

distance to the planned target on his map

- ☛ removes compass from pouch so it is readily available

- ☛ frequently spot-check PLGR data against map data during mission execution

Actions on Contact

PROBLEM: Too many FOs are *not mentally prepared* to initiate a call for fire when the platoon makes contact.

Technique: From the moment the FO begins moving with his platoon, he must *always be thinking what his actions will be if the platoon makes contact.* This requires *highly trained observers* to employ quick thinking and initiative.

As soon as the lead element of the platoon makes contact, the FO immediately takes cover and reports, "L41(the fire support asset) this is X01 . . . CONTACT. My location . . . 43614734, over."

Repetitive Home Station training, coupled with pre-mission execution rehearsal, prepared everyone for their respective

actions, based on his contact report . . .

- ☛ the availability and accuracy of the PLGR allowed the FO to *immediately self locate* (within +/- 30 meters)

- ☛ although the call went to the fire support asset, the FSO *monitors* and plots the FO's location

- ☛ the FSO then preclears a 400-meter area around the grid (since most contact occurs within close proximity of the platoon, this preclearance should be adequate once the FSO hears the call for fire).

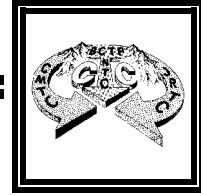
- ☛ the FSO then requests permission from the commander to fire, concerned now *only with elements the FO may not be aware of.*

- ☛ the FDC (either mortars or field artillery) *reads back the FO's initial report* and prepares for a fire mission *using polar plot data.*

- ☛ after deciding the type of mission, i.e., adjust fire or fire for effect or immediate suppression, the FO transmits his call for fire . . .

"Immediate suppression . . . polar . . . direction 3570 . . . distance 300 . . . over."

- ☛ next the FO sends a good target description to the FSO (see FM 6-30, pg 4-3, for examples). The FSO should not bother the FO with SALUTE-type questions until the fire mission is finished. The priority must be getting rounds down range.



Use of the Polar Plot

This technique is far superior to any other method of target location, because the FO relies on the FDC to determine the grid to the target.

PROBLEMS:

1. Polar plots are infrequently used in mobile situations in restrictive terrain *because of difficulties FOs have knowing their precise location.*

2. Too many FOs attempt to determine target location using terrain association and a map, or adjusting from a planned target. Both tasks are *extremely difficult in restrictive terrain, especially during limited visibility and/or adverse weather.*

RESULTS:

1. Because too many FOs lack confidence in their abilities to call in correct target locations, *many opportunities to use indirect fires in the close fight are missed.*

2. Because of *poor results* from FOs trying to use terrain association or trying to adjust from a planned target, many *maneuver commanders have lost confidence in the ability of indirect fires to support the close contacts.*

Techniques: employing a *fire direction computation computer (MBC) and a PLGR* designed to **increase the accuracy of fires.**

1. Using the call-for-fire example cited earlier, when the FO calls in a direction of 3570 mils and a distance of 300 meters, the FDC inputs this into the computer, and *a 10-digit grid is produced.* Compare this accuracy to that when the FO attempts to do terrain association, on the move, during limited visibility.

2. *If necessary and time permitting,* the FO can use the PLGR himself to determine the target grid, based on direction and distance from *his current location.*

☛ effective only when the FO has time to input data into the PLGR

☛ even more effective and accurate when using a *laser range finder* to determine the exact distance to the target

Procedure: to determine a grid with PLGR as an observer

1. In the WP mode, select RNG-CALC.

2. Determine the *waypoint* you want the direction and distance to be from.

3. The PLGR's current position *is always WP00.* (**NOTE: before using this function, the observer must ensure the PLGR is reporting an accurate grid location.**)

4. Input the distance to the target (RNG), the direction to the target (AZ), and the estimated target altitude/elevation (EL).

5. Press the down arrow (No. 5 key) and the PLGR calculates the grid.

Remember, *when the FO is in contact, and the platoon is attempting to fix the enemy,* the FO doesn't have time to lase a target or input data into the PLGR. **LET THE FDC DO WHAT IT DOES BEST!** The priority is **to get rounds down range fast enough to influence the current fight.** Using polar plot data with the PLGR is the quickest method and doesn't sacrifice accuracy.



Use of Planned Targets

Using planned targets with the techniques and procedures above allows the fire support asset to *follow* the maneuver element as it moves to its march-order objective or moves through its assigned sector.

PROBLEMS:

1. Seldom will the enemy appear where the planned target is located.
2. Determining the exact location of planned targets on the ground *is difficult, even using the PLGR.*
3. Most planned targets *will not be fired* during “chance” contact situations.

4. Attempting to determine shift from a known point datum based on planned target data *during contact in 25 seconds or less* is an extremely difficult task.

Techniques: to ensure the fire support asset is most responsive once contact is made

1. With the fire support element *following* the maneuver by shifting from sequenced planned targets along the maneuver route of movement, the FO knows the fire support *can range targets in the area, and only minor deviation and quadrant/elevation changes* will be necessary when the FO transmits his call for fire.

2. The FO *can* have planned targets *fired*.

☛ **use the PLGR to help determine the planned target location**

☛ **remember the 6-digit planned target grid the fire support asset has because the planned target *may be quite different from the actual grid to the planned target on the ground.***

☛ **the FO then must account for this potential difference when firing planned targets, and send refinements as necessary.**

Home-Station Training

Success in employing these techniques and procedures for fire support in the close fight requires significant Home-Station training. Maneuver commanders, Fire Support Officers and their NCOs must realize that calling for fire from an OP or training at a TSFO/FOTS is helpful, *but very limited in preparing for calling for fire in actual combat situations.*

PROBLEMS:

1. FOs must be able to quickly locate a target *that is*

moving or maneuvering on the platoon.

2. The FO will most likely not have a terrain sketch and will not be standing in a hole or bunker.

Techniques: to use to enhance Home-Station training

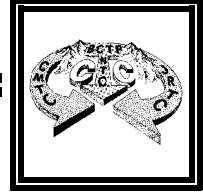
1. First answer the question, “How does this training prepare my FOs for the tasks they’re expected to accomplish with their platoons?” FOs must train on tasks they’ll be expected to perform when they deploy with their task force.

2. Integrate fire support training routinely with maneuver company and platoon training, particularly emphasizing the company mortars and the battalion mortar FDC.

3. Use maneuver platoon lane training in restrictive terrain:

☛ **have a small OPFOR, with a PLGR-equipped firemarker team, initiate contact**

☛ **train FOs to initiate calls for fire as discussed earlier**



☛ a controller, with the mortars, then asks what grid is being shot (based on polar plot data from the FO), and the controller relays the grid to the firemarker with the OPFOR.

☛ the OPFOR firemarker marks the fires with an artillery simulator.

☛ continue the contact until the OPFOR is neutralized.

This type of lane training is extremely beneficial. It can be

done with or without an infantry platoon. It is very cost effective FO training that can be executed in a variety of terrain, to further challenge the FOs.

FOs are critical players in supporting the close fight. Their ability to provide responsive, effective fire support can be the combat multiplier necessary to win. FOs must overcome their demonstrated hesitancy to initiate

calls for fire in restrictive terrain when contact is made.

Training and then using the techniques and procedures we've discussed will allow FOs to *regain the confidence of the maneuver commanders and platoon leaders* they support. Effectively using the PLGR can enhance significantly the FOs ability to provide rapid, accurate fires *regardless of the conditions.* ⚡